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# CIRCULAR NUMBER 12

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## CHIEF SURGEON'S OFFICE

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### GHQ AFPAC



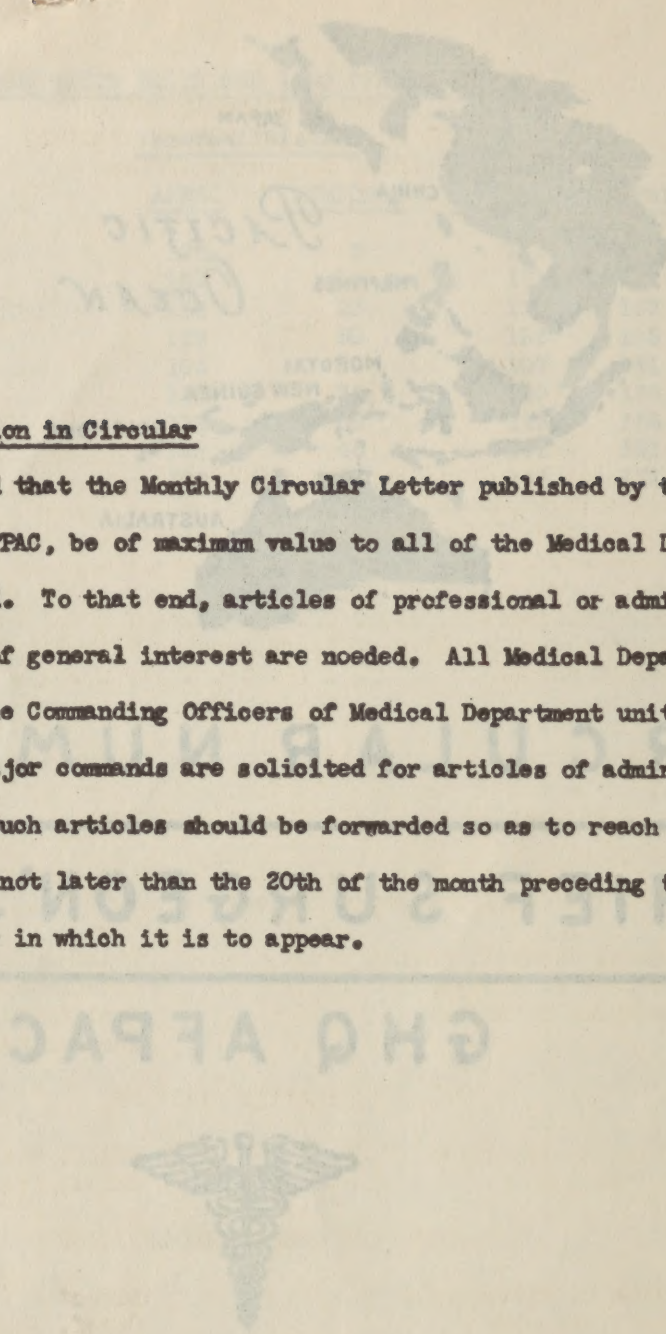
1 NOVEMBER 1946

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Articles for Publication in Circular

It is desired that the Monthly Circular Letter published by the Chief Surgeon, GHQ, AFPAC, be of maximum value to all of the Medical Department personnel in the field. To that end, articles of professional or administrative nature that might be of general interest are needed. All Medical Department officers as well as the Commanding Officers of Medical Department units and the Surgeons of the major commands are solicited for articles of administrative or technical value. Such articles should be forwarded so as to reach the Chief Surgeon, AFPAC, not later than the 20th of the month preceding the publication of the circular in which it is to appear.

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GHQ AFPAC

1 NOVEMBER 1948



GENERAL HEADQUARTERS  
UNITED STATES ARMY FORCES, PACIFIC  
Chief Surgeon's Office

CIRCULAR LETTER)  
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NO.....12)

APO 500  
1 November 1946

PART I

ADMINISTRATIVE

SUBJECT

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A. GENERAL

I. Organization of Chief Surgeon's Office

1. The following is a list of commissioned personnel currently assigned to the Chief Surgeon's Office:

Brig. General James A. Bethea	Chief Surgeon
Colonel Albert R. Dreisbach	Deputy Chief Surgeon
Major Frederick H. Gibbs	Executive Officer and Chief, Administrative Division

ADMINISTRATIVE DIVISION

Major Hillas B. Brockett	Chief, Miscellaneous Branch
Lt. T. J. Shelton	Chief, Operations Branch

PLANS AND OPERATIONS DIVISION

Colonel John C. Fitzpatrick	Director
Major John V. Painter	Chief, Supply Branch
Captain Felix G. Rajcecki	Assistant to the Director
Lt. Harold Hendrix	Chief, Medical Records Branch



## PERSONNEL DIVISION

Lt. Colonel Lewis C. Shellenberger	Director
Major Sam A. Plemmons	Assistant Director
Captain Joseph W. Jacobs	Chief, Analysis Branch

## MEDICAL INSPECTORS DIVISION

Colonel Albert R. Dreisbach	Director
Lt. Colonel Warner F. Bowers	Surgical Consultant

## MISCELLANEOUS

Colonel Terry P. Bull	Dental
Colonel Stanley C. Smock	Veterinary
Lt. Colonel Mary G. Phillips	Nursing

### II. Immunization Regulations

2. Attention is invited to Section 3, paragraph 2b, Army Forces, Pacific, Circular No. 91, dated 1 October 1946, covering immunizations and reimmunizations required throughout the theater. The provisions of War Department Circular No. 129, dated 3 May 1946, are still in effect for the areas designated therein, namely: China, Korea, Indo-China, India, and Japan.

### III. Evacuation to the ZI for Treatment

3. Radio WCL-21845 from The Surgeon General, dated 16 October 1946, is quoted for information and guidance of all concerned:

"Until instructed otherwise it is desired that no further cases uncomplicated Gonorrhea be evacuated to Zone of Interior for treatment."

### IV. Hospital Funds

4. Reference is made to paragraph 2 of letter quoted in Section 2, paragraph 2, Chief Surgeon's Circular Number 10, dated 1 September 1946. This reference applies to major commands only. Excess funds belonging to individual Hospital Funds are to be forwarded to the Central Hospital Fund of the major command concerned.

5. The custodian of AFPAC Central Hospital Fund is in frequent receipt of excess funds from individual hospitals of this theater. Excess funds belonging to individual hospital funds should be forwarded to the custodian of the central hospital fund of the major command concerned. If the custodian of the major command hospital fund finds that



the amount transferred to him is in excess of his needs, he can endorse the entire check to the custodian of the AFPAC Central Hospital Fund. However, the normal procedure would be to deposit such checks to the credit of the major command central hospital fund, after which a check could be drawn to the AFPAC Central Hospital Fund for any amount in excess of the authorized balance.

## B. SUPPLY

### V. Pontocaine

6. Item No. 1354500, Pontocaine Hydrochloride, 10 Ampules, was reclassified to obsolete in February 1946. Formal notification of this action will be contained in Change 9 to MED 3 now in process of publication.

7. Item No. 1471820, Tetracaine Hydrochloride Ampules (Pontocaine Hydrochloride Crystals, Nipponoid) has been standardized as a replacement item; however, depots may continue to issue item 1354500 until stocks of new item become available.

## C. PERSONNEL

### VI. Promotion of Officers

8. In recognition of the present situation wherein 1st Lieutenants of the MC, DC and VC are occupying positions normally assigned to higher grade, the War Department has given specific instructions concerning promotions of these officers in AR-605-12 published 13 August 1946, and in Change No. 1, dated 4 September 1946. Due to the extreme shortage of Medical Corps Officers, many of these young officers are holding key positions and are doing excellent work. It is the desire of this office that these officers receive recognition for this work by promotion.

9. Every Commander having Medical, Dental, or Veterinary Corps Officers under his jurisdiction should review the cited Army Regulation, and should promptly submit promotion recommendations for officers who are qualified and deserving. Especially, those officers who have been retained as approved War Department exceptions to surplus declarations by reason of essentiality, should be given every benefit permitted by the new instructions.

10. In brief, the following pertains:



- a. Officers of the Medical, Dental, and Veterinary Corps may be promoted from 1st Lt. to Captain after 12 months service in grade, without regard to position vacancy.
- b. Any Captain of the Medical, Dental, or Veterinary Corps may be promoted to the grade of Major providing he has been in grade 18 months and provided he occupies a T/O or T/A position vacancy.
- c. A Captain of the Medical Corps may be promoted to the grade of Major after being 12 months in grade, providing he occupies a T/O or a T/A position vacancy and providing he is rated as an A, B, C, or D Specialist in one of the following MOS numbers: 3005, 3101, 3104, 3105, 3106, 3107, 3108, 3111, 3112, 3113, 3115, 3116, 3125, 3126, 3128, 3129, 3130, 3131, 3138, 3139, 3150, 3151, 3152, 3153, 3180, 3182, 3184, 3303, 3306, 3307, 3309, 3310, 3311, 3314, 3315, 3316, 3325, 3327.
- d. Although an appropriate T/O or T/A position must be occupied for an officer to be recommended for the grade of Major, promotions to Captain or Major can be made outside of and in addition to bulk allotments in the grades of Captain and of Major authorized each Commander concerned.
- e. Under his current category statement an officer must have a six-months service expectancy after the date of initiation of promotion recommendation.
- f. Promotions to the grades of Colonel and Lt. Colonel are indefinitely suspended.

11. Naval officers serving with the Army are promoted in groups based on length of service as determined from time to time by the Navy Department. Army Commanders will refrain from initiating their promotion recommendations.

#### VII. Efficiency Reports for Naval Officers Serving with the Army

12. Efficiency reports for any Naval officer personnel permanently assigned to duty with the Army must be accomplished on 1 March and 1 September of each year by the appropriate Army Commander, on Navy Form NAV PERS 310-A "Officers Fitness Report". (WD Cir. 263, 29 August 1946).

#### **VIII. Proper Use of Nurses**

13. Nurses are allotted to each major subordinate command in numbers believed necessary to care for the sick and for necessary training activities as students or instructors in subjects related directly to care of patients. Under no circumstances should nurses be assigned as receptionists, information clerks, general mess officers, post exchange officers, hostesses, or to other non-professional duties.

14. In the event nurses are provided on a scale greater than required for training, or for patient care (even during a temporary low in bed occupancy) that fact should be promptly reported to GHQ, AFPAC.



## PART II

### TECHNICAL

#### IX. Management of Femoral Fractures

The following paragraph from a letter from The Surgeon General is quoted for the information of all concerned:

"Colonel Cole, Chief Surgical Consultant for this office, has just returned from an inspection trip to Wakeman General Hospital, at Camp Atterbury, Indiana. He reports that he saw several femur cases that had recently been received from your theater, in plaster, which showed marked over-riding, angulation and presented a terrible problem in rehabilitation. The time lag from the application of plaster to a femur and that patient's arrival in a General Hospital here at home is great. It would appear from this report that these fractures were either not properly reduced by suspension skeletal traction before they were placed in plaster for transportation or that they were not kept in suspension traction sufficiently long for consolidation to occur. When a femur is received in the States with mal-union and over-riding, either very extensive surgery is necessary to correct this disability and the result is always questionable or the patient has a disability for life. I wish you would let your theater know what is necessary to be done to a fractured femur whether it be compound or simple before it is cased in plaster to be transported home."

It is believed that the general principles of management of femoral fractures are well understood by medical officers currently assigned in this field, but a short resume with enumeration of certain pitfalls seems advisable. The specific points relating to compound fractures are as follows:

Shock Therapy: Replacement of circulating blood volume by administration of plasma or whole blood to the point where a systolic pressure of at least 90 and preferably 100 is maintained, is immediately mandatory. Subsequently, when the immediate danger of death from shock has been overcome, intelligent treatment should be guided by hematocrit and plasma protein determination.

Wound Management for Compound Fractures: Wound debridement should include exploration to remove foreign bodies and ascertain the extent of damage, careful lavage with large quantities of sterile saline solution to mechanically cleanse the wound, and excision of obviously devitalized tissue, especially muscle. Soft tissue should be spared if possible and bone fragments should be retained if feasible, in order to prevent shortening and to insure local presence of excess calcium which



will be needed in bone repair. Compound fracture wounds must be left open until the danger of sepsis is obviated and drainage must be maintained. Tight wound packing, however, is to be avoided. The open wounds may be treated with penicillin solution as a continuous wet dressing changed infrequently and secondary closure is acceptable when the wound is clean. Chlorine solutions are acceptable but local implantation of the sulfa drugs is looked on with disfavor, more because of complications from previous generalized misuse rather than from shortcomings of the drug.

Penicillin: Immediate institution of penicillin therapy in full doses is indicated and it should be borne in mind that doses of 100,000 units every three hours may be necessary because of inability to predict what proportion of the drug being used currently may be the inert fraction. Discontinuance of penicillin therapy should be based on the patient's clinical course and appearance of the wound.

Points relating to the management of femoral fractures, whether simple or compound are as follows:

Suspension Traction: The use of the Thomas splint and Pierson attachment with the employment of skeletal traction by means of a Kirschner wire is advocated and it is felt that in most cases, the wire should be placed through the femur rather than through the tibia. This obviates prolonged pull through the knee joint structures, permits maintenance of knee joint motion and gives a better mechanical pull on the fragments. Some orthopedists feel that skeletal traction through the femur is advisable for fractures of the upper third, whereas traction through the tibia is advised for lower and middle third fractures. This tibial traction may be supplemented by a second wire through the femur with five pounds of traction to correct posterior bowing of the distal fragment. In some instances, vertical traction in a position of knee flexion may facilitate reduction and will make wound care easier. Ordinarily, vertical traction should not be maintained for more than four to six weeks to prevent patella fixation and stretched quadriceps from prolonged knee flexion. Suspension traction should be maintained until failure of possibility of attaining satisfactory position has been demonstrated or until sufficient consolidation has been achieved so that application of plaster will not jeopardize the position. Usually, skeletal traction should be maintained for six to nine weeks if position is satisfactory, but in some instances, a twelve-week period is necessary. In some cases, slow callus formation may be stimulated by the oral administration of Hcl, drams 4 tid pc. Evacuation to the states should not be considered until it is evident that sufficient bone healing has taken place so that position will not be lost in plaster. When the cast is applied, it should extend from the costal margin to the knee on the unaffected side and to the margins of the toes on the affected side. X-rays must be taken after plaster is applied. Due to infrequent arrival of hospital ships on an



irregular schedule, there has been a tendency to move everything possible when a ship did arrive. This attitude is understandable, but it must be remembered that it is better for the patient and for the Service for the patient to miss one or two ships rather than to be put in plaster to the detriment of position of the fragments. This point seems self-evident, but must often be explained to anxious patients. Under any evacuation policy, the patient should not be evacuated until such evacuation will not be a danger to life or increase the disability.

Open Reduction: In the absence of well-qualified orthopedists, a very conservative attitude with regard to operative procedures is desirable. However, certain cases unavoidably require open reduction and if the orthopedist cannot be taken to the patient, the patient must be taken to the orthopedist as soon as transportation is safe. Do not hesitate to ask for consultation in questionable cases.

Your attention is invited to the fact that it sometimes requires a heavy pull to reduce a femur. Once the femur is reduced, checks by X-ray are necessary to prevent over-traction and allow bone ends to approximate for union.

Finally, it must be recognized that certain cases will inevitably eventuate in a poor result and occasionally there will be cases that are beyond the capabilities of currently-assigned personnel. In such instances proper notation should be made in the clinical record to indicate to medical personnel subsequently receiving the patient that these facts have been appreciated.

X. Case Report (Submitted by Allan B. Coleman, 1st Lt., MC, and Peyton Jacob Jr., Capt., MC):

#### PART I:

History: S.R.H., a nineteen year old white Pfc. with 14 months service was admitted to the hospital on 18 June complaining of muscle weakness of the legs, left arm, face and tongue of 18 hours' duration.

The patient was well until the morning of 17 June when he noted difficulty in depressing the clutch pedal of the truck he was driving. At 0030, 18 June, when awakened for guard duty, he was unable to stand. By 1000, 18 June, at the time of admission to the hospital, the left upper extremity and left side of the face were also weak.

The past and family histories were non-contributory. System review was negative.

The patient had received 1 cc. of Japanese B encephalitis vaccine (mouse brain type) on 7 June and 14 June.



Physical examination: The patient was slender but well developed, and not in acute discomfort. The temperature was 98.6, pulse 96, respirations 18. The legs could be moved slightly, but the muscles appeared flaccid and deep reflexes were absent. The small muscles of both hands and left shoulder girdle were weak; the left naso-labial fold was shallow, and the left side of the face moved only slightly; the tongue protruded to the left.

There was no nuchal rigidity or Kernig sign. There were no sensory disturbances.

The remainder of the physical examination was negative.

Laboratory Examination: Hemoglobin 95%, red blood cells 4.96 million, white blood cells 10,000, neutrophils 59%, lymphocytes 39%, monocytes 2%. The sedimentation rate was 2 mm. per hour. The spinal fluid was clean, and under an initial pressure of 10.5 cm of water; the Queckenstedt test was normal. The fluid contained one polymorphonuclear cell, two lymphocytes, and 84 red blood cells per cubic mm.; the spinal fluid sugar was 79 mg.%, the total protein 112 mg. per cc.; the Pandy test showed slightly increased globulin.

Course: Treatment was begun with thiamine chloride 50 mg. intramuscularly, and bed rest. On 19 June the patient was unable to sit up in bed; swallowing became difficult, and the muscles of mastication were weak, bilaterally. The lower 2/3 of the facial muscles on both sides were weak; the soft palate moved sluggishly. The trapezius and sternocleidomastoid muscles were weak. Slight motion at both elbow joints was still possible, but the lower extremities could not be moved in any direction. All deep reflexes were absent, but the cremasteric, as well as the corneal reflexes were active. There were no pathologic reflexes or sensory changes. There was no fever.

By 20 June, swallowing was impossible and speech thick; the cough was weak. Nutrition was maintained with intravenous fluids. The pulse was 100.

On 21 June, micturition was difficult, and the pulse rate dropped to 62, with slight irregularity.

On 22 June there was great difficulty in clearing the throat of mucus, requiring almost constant use of a suction apparatus. The tongue could be protruded only as far forward as the teeth. None of the extremities could be moved. Paradoxical respiration denoting diaphragmatic paralysis was noted; slight cyanosis developed, but the color improved when the patient was placed in a respirator; oxygen was administered by nasal catheter. At 1500 on 22 June, while receiving an intravenous infusion, he suddenly became cyanotic; the heart continued to beat for approximately 20 minutes, but artificial respiration and stimulants failed to re-establish respiration. The heart beat ceased at 1530, 22 June.

## XI. Physical Therapy in Overseas Hospitals:

Introduction: A brief resume of the most common physical therapy procedures employed in overseas hospitals is submitted. These suggestions may be helpful to medical officers who have not had the opportunity to acquaint themselves with physical therapy as carried out in Army hospitals. Other methods are also worthy of consideration and may be found in current literature, for the experiences gained during the war have given impetus to this growing field of therapy.

Beneficial results can be anticipated from physical therapy as an adjunct to other treatment if properly prescribed in selected cases and started early. Changes in treatment should be made when indicated by the changes in pathology. Selection of the type of treatment should be based on knowledge of desired physiological effects which will benefit a given condition, and the physical agent which will produce those results. Treatment should not be prescribed as a placebo, and should not be continued indefinitely unless improvement is noted. The old idea of "baking, massage and exercise" is a thing of the past. The more accurately the diagnosis and prescription are made the more intelligently the physical therapist can carry out the order.

Equipment: Standard physical therapy equipment in overseas hospitals consists of arm and leg whirlpools, electric bakers, infra-red lamps, mercury arc lamps, galvanic machines, short wave diathermy machines, and various pieces of improvised exercise equipment. With the arrival of hospital equipment from the Zone of Interior increased numbers of these items, and a few additional ones should be available.

Procedures: The following usual procedures are available in all hospitals which have organized physical therapy department: thermotherapy, hydrotherapy, electrotherapy, ultra violet, therapeutic exercise and massage.

Thermotherapy: Infra-red radiation may be obtained from lamps or electric bakers. The effect of such radiation is thermal, whether the source is luminous (tungsten or carbon filament bulbs) or non-luminous (infra-red elements). Heat from the luminous source is slightly more penetrating, although both types of radiation have a superficial effect. Physiological effects of infra-red radiation include increase of blood supply to the part due to vasodilatation of the capillaries, relaxation of muscle spasm, and relief of pain due to the soothing effect on the sensory nerve endings.

Local applications may be used effectively in traumatic conditions, fractures, sprains, strains, dislocations, arthritic conditions, neuritis, catarrhal conditions, and as a preliminary to other physical therapy measures, such as massage or exercise. General heat radiation, either by large lamps or electric light cabinets, may be used as an adjunct in the treatment of such cases as rheumatoid conditions, nephritis, and neurological conditions. Radiant heat is contraindicated in febrile conditions,



certain skin cases which might be aggravated by heat, burns and fresh scars, and any case where increased blood supply would be harmful.

When radiant heat is the main part of the treatment it may be of twenty to thirty minutes duration; if used as a preliminary to other treatment fifteen minutes may be sufficient. Frequency and length of treatment varies with individual patients. It may be advisable, in some instances, to employ frequent, mild treatments, but for the average case daily treatment are routinely given in Army hospitals.

Hydrotherapy: The most common form of hydrotherapy is the whirlpool bath which provides the combined action of heat and the gentle mechanical effect of the whirling water. This type of heat also results in increased circulation, relaxation of muscles and relief of pain, and is an excellent medium for the treatment of fractures, sprains, arthritis and peripheral nerve injuries. Because of the additional cleansing effect it is particularly valuable after the removal of casts, and for the treatment of stiff joints it appears to be much more efficacious than other forms of heat. Contrast baths, alternating hot and cold, may be useful in fractures and arthritis of the extremities and peripheral vascular disease. Immersion in the hot water for four minutes is followed by one minute in the cold. This should continue through a series of seven or nine alternations, always beginning and ending with the hot water.

Another form of local heat application is the use of hot paraffin. A large double boiler and a heating unit may be utilized in lieu of a commercial paraffin bath. The extremity may be immersed in the paraffin, or it may be applied to the body surface with a brush. This rather high degree of surface heating leaves the skin soft and pliable, and in excellent condition for massage and exercise.

Electrotherapy is available in the form of short wave diathermy, galvanism and faradism. It is possible, by the use of high frequency currents, to produce heat in deeper tissues than is possible with infra-red radiation. Hence short wave may be the treatment of choice in traumatic conditions, neuritis, myalgia, some circulatory disturbances. It produces active hyperemia and increased flow of lymph, and has a sedative effect on nerves, relieving pain and spasm. The use of this form of therapy is contraindicated in cases which have a tendency to hemorrhage, acute inflammatory conditions accompanied by fever, and malignant tumors. Treatments are ordinarily of twenty to thirty minute duration. Since there is no way of accurately measuring the dosage it must be kept well below the patient's tolerance, a feeling of gentle warmth being sufficient.

The low frequency currents, galvanism and faradism, are used chiefly in muscle testing, muscle stimulation and iontophoresis. In testing muscles for reaction of degeneration the faradic current is used first. If the faradic response is normal further testing is unnecessary for it will be evident that the nerve is intact. The impulses of the faradic

current are of very short duration and will not produce response from a denervated muscle. The galvanic response, however, can be elicited, and the type of contraction produced will aid in determining the extent of the lesion and the prognosis of the case. A preliminary warming up by infrared radiation or whirlpool will decrease the skin resistance and make the stimulation less painful. While both of these currents may be used for stimulation of weak muscles they should never replace voluntary exercise when that is possible.

The galvanic current is also employed for the introduction into the skin of drugs by common ion transfer, which may be of value in some cases. Histamine and mecholyl produce prolonged local vasodilatation, and are sometimes used in arthritis and peripheral circulatory disturbances. Cooper iontophoresis has been used successfully in fungus infections of hands and feet.

Ultra Violet radiation is produced by the air-cooled mercury arc lamp. While the best source of such radiation is the sun, the artificial rays as produced by the various lamps are of great value. These rays have actinic, or chemical, action and create a latent erythema. Repeated experiments by many investigators reveal the following physiological effects: a. Skin - local erythema of first, second, third or fourth degree according to the dosage employed, pigmentation due to the deposit of melanin in basal cells of the epidermis, chemical action which results in the production of vitamin D. b. Blood - increase in red blood cells, rise in bactericidal power, increase in calcium and phosphorus content, increased alkalinity of the blood, decrease of blood coagulation time. c. Metabolism - improvement in general health and increase in muscle tone, due probably to the tonic action on sensory nerve endings in the skin induced by the increased circulation. General irradiation, therefore, may be beneficial in rickets, diseases in which there is deficiency of calcium and phosphorus, secondary anemia, general debility. Local irradiation is often employed for bactericidal effects in superficial infections and infected wounds. Indolent ulcers and wounds often respond favorably to ultra violet, possibly preceded by some form of heat. The beneficial effects are believed to be due to the production of hyperemia with increased granulation and sterilization of the lesion. Good results may be obtained in some skin conditions, such as psoriasis, furunculosis, acne vulgaris, but are not always permanent. Ultra violet irradiation is contraindicated in pulmonary tuberculosis, generalized dermatitis, hyperthyroid cases, diabetes and nephritis.

Therapeutic Exercise: Exercise may be passive, in which the operator performs the movement without the assistance of the patient. This is not to be confused with forcing, which is rarely used as a physical therapy procedure. Active exercise is performed by the patient, and includes static contractions, assisted, unassisted, and resisted exercise. When for specific reasons the patient cannot do active exercise the passive type may be employed to prevent contractures and adhesions, and maintain and increase joint motion. Active exercise produces the best results and



should be started as soon as the condition of the patient permits, particularly in orthopedic cases. If, for instance, the initial treatment was some form of heat and massage, the medical officer should instruct the physical therapist when the patient has progressed sufficiently to start exercise. In most instances massage can and should be discontinued when exercise can be carried out. Voluntary contractions of muscle increases circulation and builds up muscle tone and strength which massage will not do.

Progression in exercise is dependent upon the patient's rate of improvement. Since the time spent in the clinic is a short period, the patient should be given instructions in specific exercises to be performed at intervals during the day. Various items of equipment are desirable, such as finger and wrist exercisers, shoulder wheel and ladder, pulleys, ankle exercisers, bicycle, stallbars. Excellent results have been obtained, in certain knee cases, with heavy resistance exercises, in which shoes with attached, adjustable weights are used. This method appears to be superior to the use of pulley weights.

Reeducational exercises are used in poliomyelitis, spastics, nerve injuries, nerve and tendon transplants. This involves a relearning process, ranging from the simplest to the more highly coordinated movement of normal daily activity.

Exercise should also play an important part in the treatment of postural cases, weak feet, and back conditions. Its value often lies in building up muscle strength as a protection against aggravating the original condition, such as unstable knees and certain low back conditions.

Massage is commonly employed in the treatment of some types of paralysis, post-traumatic conditions, fractures, healed skin grafts or burns, myalgias, fibrositis. The stroking which follows the direction of the venous flow assists its return, and in turn allows a larger supply of arterial blood to flow through the part. The pressure also acts upon the lymphatic vessels. Correctly applied massage will help to loosen scar tissue. It may be sedative or stimulating in nature according to the technique used. The use of lubricant in administering massage should be kept to a minimum so as to avoid sliding over the skin rather than exerting pressure on underlying tissues.

Massage is contraindicated in acute inflammatory conditions, skin diseases, tuberculous lesions, acute systemic diseases accompanied by fever, acute phlebitis and thrombosis, debilitating disease requiring complete rest. Massage is not generally used in poliomyelitis as it was formerly. It should not be used as a substitute for exercise because active voluntary muscular contractions are far superior to massage in the restoration of function.

REFERENCES: Since this is of necessity a very brief presentation, the following references are suggested for more detailed information.

1. Haymaker and Woodhall, PERIPHERAL NERVE INJURIES, W. B. Saunders Company, Philadelphia and London, 1945.
2. Kovacs, Richard, ELECTROTHERAPY AND LIGHT THERAPY, Lea and Febiger, Philadelphia, 1942.
3. Krusen, F. H., PHYSICAL MEDICINE, W. B. Saunders Company, Philadelphia and London, 1942.
4. War Department Technical Bulletin, MASSAGE IN PHYSICAL THERAPY, T.B. MED 173, 8 August 1945.
5. War Department Technical Bulletin, POLIOMYELITIS, T.B. MED 193, 31 August 1945.
6. War Department Technical Manual, PHYSICAL THERAPY FOR LOWER-EXTREMITY AMPUTEES, TM 8-293, June 1946.
7. Medical Research Council War Memorandum No. 7, AIDS TO THE INVESTIGATION OF PERIPHERAL NERVE INJURIES, His Majesty's Stationery Office, York House, Kingsway, London, W.C.2.
8. ARCHIVES OF PHYSICAL MEDICINE, 30 North Michigan Avenue, Chicago 2, Illinois.
9. AMERICAN PHYSIOTHERAPY REVIEW, 1790 Broadway, Room 512, New York 19, N.Y.
10. DeLorme, Thomas L., Capt. M.C. AUS, RESTORATION OF MUSCLE POWER BY HEAVY-RESISTANCE EXERCISES, The Journal of Bone and Joint Surgery Vol. XXVII, No. 4, pp 645-667, October 1945.



### PART III

#### STATISTICAL

##### XII. Evacuation

1. During the period 31 August to 27 September the following patients were evacuated from the several major commands:

	<u>AIR</u>	<u>WATER</u>	<u>TOTAL</u>
EIGHTH ARMY	130	351	481
AFMIDPAC	90	5	95
AFWESPAC	49	322	371
XXIV CORPS	64	3	67

2. The following are the evacuations per 1000 strength for the period 31 August to 27 September:

JAPAN	3.81
KOREA	1.55
AFMIDPAC	3.03
AFWESPAC	3.44
AFPAC	3.28

3. As of 27 September 1946 the following number of patients were awaiting evacuation:

EIGHTH ARMY	51
AFMIDPAC	37
AFWESPAC	235
XXIV CORPS	51

##### XIII. Hospitalization

1. The Bed Status Report of 27 September is as follows:

	<u>TOTAL T/O BEDS PRESENT</u>	<u>TOTAL T/O BEDS ESTABLISHED</u>	<u>TOTAL T/O BEDS OCCUPIED</u>
EIGHTH ARMY	5,750	5,250	2,006
AFMIDPAC	2,300	2,300	1,011
AFWESPAC	5,300	4,388	3,124
XXIV CORPS	<u>2,350</u>	<u>2,250</u>	<u>744</u>
TOTAL	15,700	14,188	6,885

2. Number of authorized beds, percent of authorized beds occupied, percent of operating beds occupied and percent of actual military strength in hospitals as patients are listed below:

	<u>BEDS AUTHORIZED</u>	<u>% AUTHORIZED BEDS OCCUPIED</u>	<u>% OPERATING BEDS OCCUPIED</u>	<u>TOTAL PATIENTS IN HOSPITAL, % OF ACTUAL MILITARY STRENGTH</u>
JAPAN	5,019	40	38	1.59
KOREA	1,833	41	33	1.72
AFMIDPAC	1,186	85	44	3.22
AFWESPAC	4,197	74	71	2.89
AFPAC	12,350	56	49	2.23

Actual strength equals 90% of authorized strength.

3. Tables showing various admission rates are listed below:

ADMISSION RATES PER 1000 PER ANNUM

All Causes

<u>Week Ending</u>	<u>AFPAC</u>	<u>AFMIDPAC</u>	<u>AFWESPAC</u>	<u>JAPAN</u>	<u>KOREA</u>
6 Sept 46	562	274	542	578	759
13 Sept 46	584	239	603	623	676
20 Sept 46		*	*	653	686
27 Sept 46		*	*	620	584

Disease

6 Sept 46	500	224	470	519	700
13 Sept 46	524	207	554	553	602
20 Sept 46		*	*	588	628
27 Sept 46		*	*	576	536

Injury

6 Sept 46	62	50	72	58	60
13 Sept 46	60	33	48	71	74
20 Sept 46		*	*	65	58
27 Sept 46		*	*	44	48

Psychiatric

6 Sept 46	10.2	26	8.5	6	1.7
13 Sept 46	6.8	22	4.4	4	1.0
20 Sept 46		*	*	7	1.6
27 Sept 46		*	*	14	.8

Organic Neurological Disease

6 Sept 46	.3	0	1.0	0	0
13 Sept 46	.3	0	0	.8	0
20 Sept 46		*	*	.4	0
27 Sept 46		*	*	0	0



ADMISSION RATES PER 1000 PER ANNUM

Common Respiratory Disease

<u>Week Ending</u>	<u>AFPAC</u>	<u>AFMIDPAC</u>	<u>AFWESPAC</u>	<u>JAPAN</u>	<u>KOREA</u>
6 Sept 46	64	31	70	68	32
13 Sept 46	68	24	85	72	53
20 Sept 46		*	*	65	41
27 Sept 46		*	*	56	37

Influenza

6 Sept 46	2.5	0	6	1	0
13 Sept 46	2.6	1.6	5	2	0
20 Sept 46		*	*	3	0
27 Sept 46		*	*	1.8	0

Primary Atypical Pneumonia

6 Sept 46	6.1	5.1	13	1.4	7
13 Sept 46	8.7	7.5	15	4.8	6
20 Sept 46		*	*	4.8	5
27 Sept 46		*	*	11	4

Common Diarrhea

6 Sept 46	7.4	0	13	5.7	3.5
13 Sept 46	8.2	0	16	6.8	1.2
20 Sept 46		*	*	5.3	0
27 Sept 46		*	*	2.8	.1

Bacillary Dysentery

6 Sept 46	.4	0	1.0	0	1.2
13 Sept 46	1.0	0	2.4	.4	0
20 Sept 46		*	*	1.8	0
27 Sept 46		*	*	.5	0

Amebic Dysentery

6 Sept 46	5	0	14	.7	1.2
13 Sept 46	4	0	9.7	.8	2.3
20 Sept 46		*	*	1.3	1.2
27 Sept 46		*	*	.5	1

# ADMISSION RATES PER 1000 PER ANNUM

## Malaria

<u>Week Ending</u>	<u>AFPAC</u>	<u>AFMIDPAC</u>	<u>AFWESPAC</u>	<u>JAPAN</u>	<u>KOREA</u>
6 Sept 46	48	6.9	70	9	152
13 Sept 46	42	3.1	70	6.8	105
20 Sept 46		*	*	5.3	66
27 Sept 46		*	*	3.3	28

## Infectious Hepatitis

6 Sept 46	4.5	0	5.7	4.6	4.7
13 Sept 46	5.3	3.1	4.4	6.4	6
20 Sept 46		*	*	5.7	4
27 Sept 46		*	*	2.8	2

## Mycotic Dermatoses

6 Sept 46	8.3	3.4	11	9.6	1.2
13 Sept 46	9.2	7.9	8.8	12.4	2.3
20 Sept 46		*	*	7.0	5
27 Sept 46		*	*	6.1	5

## Venereal Disease

6 Sept 46	118	31	125	145	71
13 Sept 46	127	41	168	141	67
20 Sept 46		*	*	177	89
27 Sept 46		*	*	180	95

\*Report not yet received.